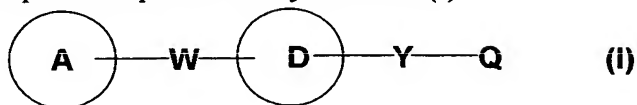


CLAIMS

1. A compound represented by formula (I)



wherein ring A is a cyclic ring which may have a substituent(s),
Q is alkyl which may have a substituent(s) or a cyclic ring which may have a substituent(s),
ring D is a cyclic ring which may have a substituent(s),
W is a single bond or a spacer of which main chain has an atom number of 1-4, and
Y is a spacer of which main chain has an atom number of 1-4,
a salt thereof, an N-oxide thereof or a solvate thereof, or a prodrug thereof.

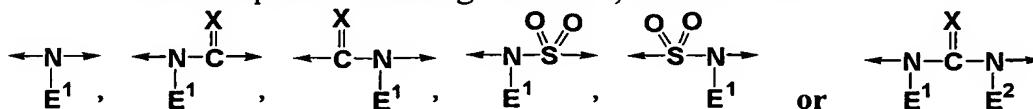
2. The compound according to claim 1, wherein ring A is (1) a C3-10 mono- or bi-carbocyclic ring, or (2) a 3-10 membered mono- or bi-heterocyclic ring containing 1 to 5 hetero atom(s) selected from oxygen atom(s), nitrogen atom(s) and sulfur atom(s), which may have a substituent(s).

3. The compound according to claim 2, wherein ring A is benzene which may have a substituent(s).

4. The compound according to claim 1, wherein W is a single bond.

5. The compound according to claim 1, wherein Y is a spacer of which main chain has an atom number of 1-4 containing a hydrogen-bond acceptor site.

6. The compound according to claim 1, wherein Y is

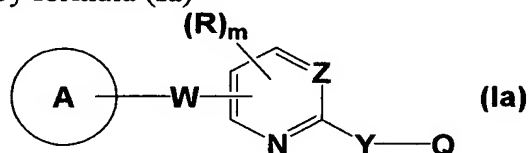


wherein E¹ and E² are each independently a hydrogen atom(s) or a substituent(s), X is an oxygen atom or a sulfur atom, left-pointing arrow binds to ring D, right-pointing arrow binds to Q.

7. The compound according to claim 1, wherein ringD is a 3-10 membered mono-, bi-heterocyclic ring containing of 1 to 5 hetero atom(s) selected from oxygen atom(s), nitrogen atom(s) and sulfur atom(s), which may have a substituent(s).

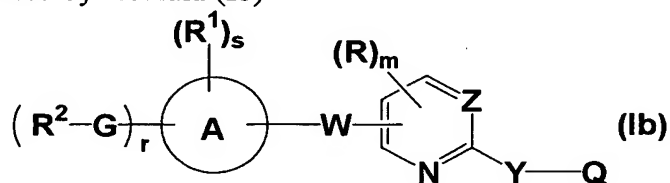
8. The compound according to claim 7, ringD is pyridine or pyrimidine which may have a substituent(s).

9. The compound according to claim 8, wherein the compound is the compound represented by formula (Ia)



wherein Z is a carbon atom or nitrogen atom, R is an hydrogen atom(s) or a substituent(s), m is an integer of 1-3, and other symbols have the same meanings as in claim 1.

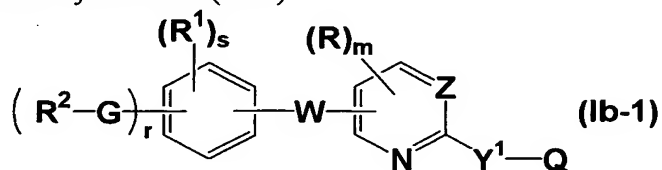
10. The compound according to claim 9, wherein the compound is the compound represented by formula (Ib)



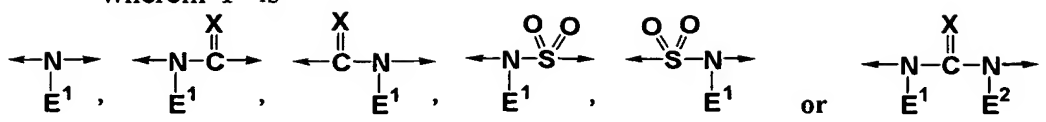
wherein R¹ is a hydrogen atom(s) or a substituent(s), R² is C1-6 alkyl which is substituted with 1-5 halogen atom(s), G is -O- or -S-, r is an integer of 1-2, s is an integer of 1-4, in which sum of r and s is below 5, and other symbols have the same meanings as in claims 1 and 9.

11. The compound according to claim 10, wherein R² is C1-2 alkyl which is substituted with 1-5 fluorine atom(s).

12. The compound according to claim 10, wherein the compound is the compound represented by formula (Ib-1)



wherein Y¹ is



other symbols have the same meanings as in claim 1, 6 and 10, and

wherein

- (1) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-N'-phenylurea,
- (2) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-N'-(4-chlorophenyl)urea,
- (3) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-N'-(3-chlorophenyl)urea and
- (4) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-2-thiophenecarboxamide are excepted.

13. The compound according to claim 10, the compound is

- (1) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}thiophene-2-carboxamide,
- (2) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-N'-isopropylurea,
- (3) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}methanesulfonamide,
- (4) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}benzenesulfonamide,
- (5) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-1-phenylmethanesulfonamide,
- (6) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-4-methylbenzenesulfonamide,
- (7) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-3-methylbenzenesulfonamide,
- (8) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-3,5-dimethylbenzenesulfonamide,
- (9) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-3,5-dichlorobenzenesulfonamide,
- (10) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}benzenesulfonamide,
- (11) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-4-methylbenzenesulfonamide,
- (12) N-{4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-N-methylbenzenesulfonamide,

- (13) N-{4[2,5-bis(2,2,2-trifluoroethoxy)phenyl]pyrimidin-2-yl}-N,4-dimethylbenzenesulfonamide,
- (14) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-N-methylbenzenesulfonamide,
- (15) N-benzyl-N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}methanesulfonamide,
- (16) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-N-ethylbenzenesulfonamide,
- (17) N-{4-[2,5-bis(difluoroemethoxy)phenyl]pyrimidin-2-yl}-N-propylbenzenesulfonamide,
- (18) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-N-isobutylbenzenesulfonamide,
- (19) N-{4-[2,5-bis(difluoromethoxy)phenyl]pyrimidin-2-yl}-N-(2-methoxyethyl)benzenesulfonamide,
- (20) 4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]-N-ethyl-2-pyrimidinamine,
- (21) N-benzyl-4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]-N-methyl-2-pyrimidinamine, or
- (22) N-benzyl-4-[2,5-bis(2,2,2-trifluoroethoxy)phenyl]-2-pyrimidinamine.

14. A pharmaceutical composition comprising of the compound represented by formula (I) according to claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

15. The pharmaceutical composition according to claim 14, wherein the pharmaceutical composition is preventive and/or therapeutic agent for mitochondrial benzodiazepine receptor mediated disease.

16. The pharmaceutical composition according to claim 15, wherein the mitochondrial benzodiazepine receptor mediated disease is a disease caused by stress.

17. The pharmaceutical composition according to claim 16, wherein the disease caused by stress is a central nervous system disease caused by stress, a respiratory system disease caused by stress and/or a digestive system disease caused by stress.

18. The pharmaceutical composition according to claim 17, wherein the central nervous system disease caused by stress is anxiety-related disease, sleep disorder, depression and/or epilepsy, a respiratory system disease caused by stress is asthma, a digestive system disease caused by stress is irritable bowel syndrome.

19. A pharmaceutical composition combining of the compound represented by formula (I) according to claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof and one kind or more kind selected from antianxiety drugs, antidepressant drugs, antiparkinson drugs, therapeutic drugs for schizophrenia, antiepileptic drugs, therapeutic drugs for asthma, therapeutic drugs for peptic ulcer, adjustive drugs for gastrointestinal function, antidiarrheals, evacuants, antihypertensive drugs, antiarrhythmic drugs, inotropic drugs and therapeutic drugs for urination disorder.

20. A method for prevention and/or treatment for a mitochondrial benzodiazepine receptor mediated disease in mammals, which comprises administering an effective amount of the compound represented by formula (I) according to claim 1, a salt thereof, an N-oxide, a solvate or a prodrug thereof to the mammals.

21. Use of the compound represented by formula (I) according to claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof for preparing a preventive and/or therapeutic agent for a mitochondrial benzodiazepine receptor mediated disease.